JUNE 2004

REPORT TO THE CONGRESS

New Approaches in Medicare

MEDPAC Medicare Payment Advisory Commission

601 New Jersey Avenue, NW • Suite 9000 • Washington, DC 20001
(202) 220-3700 • Fax: (202) 220-3759 • www.medpac.gov

APPENDIX A

Review of CMS's preliminary estimate of the physician update for 2005

APPENDIX A

Review of CMS's preliminary estimate of the physician update for 2005

Medicare's payments for physician services are made according to a fee schedule that assigns relative weights to services, reflecting resource requirements. These weights are adjusted for geographic differences in practice costs and multiplied by a dollar amount—the conversion factor—to determine payments. Thus, the conversion factor is a key element of the payment system. If it changes, there is a proportional change in the payment rates for all of the more than 7,000 services represented in the fee schedule.

The conversion factor is updated annually, based on a formula in law that is designed to control spending while accounting for factors that affect the cost of physician services. The Centers for Medicare & Medicaid Services (CMS) issues a final rule on the update in November of each year and implements the update on January 1 of the following year. To help the Congress and others anticipate the update, the Balanced Budget Refinement Act of 1999 (BBRA) requires CMS to prepare, by March 1 of each year, a preliminary estimate of the next year's update. The BBRA also requires MedPAC to review that estimate in the Commission's June report. This appendix fulfills the requirement that we review the estimate of the update for 2005.

In passing the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), the Congress amended the update formula for physician services and required an update for 2005 of no less than 1.5 percent. CMS has estimated the update for 2005—based on the formula but without the MMA minimum—at –3.6 percent. Thus, because of the statutory requirement for a minimum update, CMS concludes that an update of 1.5 percent is likely. MedPAC agrees that a 1.5 percent update is the most likely scenario. It is unlikely that the figure will be higher than 1.5 percent, because such an increase would require a large decrease in the volume of physician services, which is very unlikely based on historical trends.

In reviewing CMS's estimate, our purpose is not to assess the adequacy of the update.[1] Instead, the review that follows is limited to the technical issues involved in CMS's estimated update based on the statutory formula.

Calculating the update

Calculating the update is a two-step process. First, CMS estimates the sustainable growth rate (SGR). The SGR is the target rate of growth in spending for physician services and is a function of projected changes in:

- input prices for physician services,[2]
- real gross domestic product (GDP) per capita,[3]
- enrollment in traditional fee-for-service Medicare, and
- spending attributable to changes in law and regulation.

For 2005, CMS's preliminary estimate of the SGR is 4.6 percent (Table A-1).

TABLE A-1 Preliminary sustainable growth rate, 2005

Factor	Percent
Change in input prices	2.6%
Change in traditional Medicare enrollment	–0.2
Change in real GDP per capita	2.2
Change due to law and regulations	0.0
Sustainable growth rate	4.6

Note: GDP (gross domestic product).

Source: Gustafson 2004.

Second, CMS calculates the update, which is a function of:

- the change in input prices for physician services,[4]
- a legislative adjustment required by the BBRA,[5] and
- an update adjustment factor that increases or decreases the update as needed to align actual spending, cumulated over time, with target spending determined by the SGR.

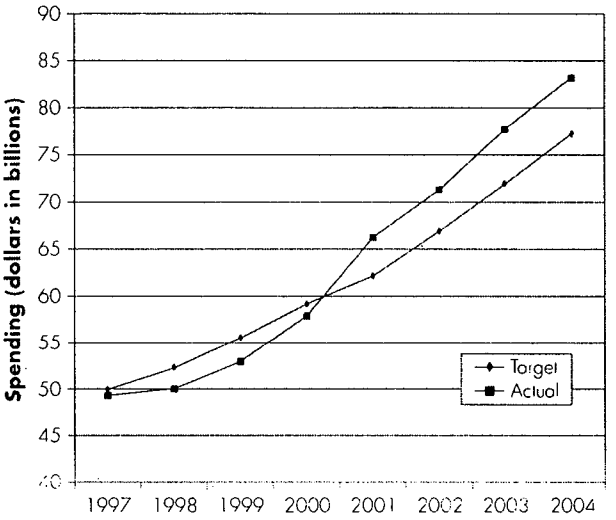
Of these factors, the update adjustment factor has the largest effect on the update estimate for 2005 (Table A-2). For 2005, the figure is –7.0 percent, which is the maximum negative adjustment permitted under current law.[6] The factor is negative because actual spending for physician services started to exceed the target in 2000 and is projected to stay above the target at least through 2004 (Figure A-1). When this adjustment is combined with the other factors that determine the update for 2005—a change in input prices of 2.8 percent and a legislative adjustment of 0.8 percent—the result is an update of –3.6 percent.

TABLE A-2 Estimate of the update for physician services, 2005

Factor	Percent
Change in input prices	2.8%
Update adjustment factor	–7.0
Legislative adjustment	0.8
Update	–3.6

Source: Gustafson 2004.

FIGURE A-1 Estimated actual spending for physician services to exceed target through 2004



Source: Office of the Actuary 2004 and Gustafson 2004.

Reviewing CMS's estimate

For the 2005 SGR, MedPAC anticipates no changes in CMS's estimates that will be sufficient to alter the update. The estimate of the change in input prices, as measured by the Medicare Economic Index (MEI), is similar to changes in the MEI for earlier years.[7] The change in real GDP per capita of 2.2 percent equals the 10-year moving average of real GDP estimates from the Bureau of Economic Analysis, adjusted for population growth (BEA 2004).

On issues related to the other two factors in the SGR—enrollment and spending due to changes in law and regulation—CMS's estimates may be somewhat less certain. CMS assumes a decrease in fee-for-service enrollment of 0.2 percent. This is different from the enrollment projection from the Congressional Budget Office (CBO), which is an increase in fee-for-service enrollment of 0.9 percent for 2005. A decrease could

occur, but only if there is a shift in enrollment from Medicare fee-for-service to Medicare Advantage.[8] CMS's ability to project the magnitude of any such shift should improve as we gain further experience with Medicare Advantage. This experience is critical because of the importance of enrollment growth in determining the SGR, and therefore, the target for spending over time.

As to changes in spending due to law and regulation, CMS estimates no changes for 2005 because of offsetting provisions in the MMA. Under the law, several new benefits will start in 2005: a preventive physical for new beneficiaries, cardiovascular screening blood tests, and diabetes screening tests. In addition, spending will increase because of incentive payments for physician services furnished in physician scarcity areas and health professional shortage areas. The total increase in spending—the incentive payments plus the new benefits—will equal $230 million, according to CMS's estimates.

By contrast, other requirements in the MMA will result in a decrease in payments—payments for administration of drugs covered by Medicare Part B—in 2005. The decrease will occur because of a drop in the size of a transitional adjustment in 2005, compared to 2004. The adjustment will drop from 32 percent to 3 percent, as a percentage of payments for drug administration under the physician fee schedule. CMS estimates that this decrease will equal $200 million and will almost fully offset the increases in spending due to the new benefits and the incentive payments.[9]

In reviewing CMS's estimate of the law and regulations factor for the SGR, we learned from CBO that they do not independently calculate this factor. However, CBO agrees that the cost-increasing and cost-decreasing provisions in the MMA approximately offset each other.

MedPAC cannot assess the magnitude of these estimates. Nevertheless, we judge that the estimates, and the difference between them, are not large enough to change the update for 2005.

The remaining issues concern CMS's estimates of actual spending. Data on actual spending are nearly complete through the first three quarters of 2003 but are less complete for the last quarter of that year. Therefore, the estimate of actual spending in 2003 may increase or decrease somewhat before CMS issues a final rule on the update in November 2004. The uncertainty regarding 2004 estimates is greater than for 2003 because CMS currently has no information on actual spending for that year. The agency has responded to this uncertainty by using stochastic projection techniques to analyze variation in the update adjustment factor (Office of the Actuary 2004). Under a range of possible scenarios for growth in real GDP per capita and growth in the volume of physician services, the analysis shows a 95 percent probability that the update adjustment factor will equal the maximum negative adjustment of –7.0 percent.

A maximum negative adjustment has such a high probability because a different outcome would require an uncharacteristic decrease in spending for physician services in 2004. An update of 1.5 percent for 2004 has already occurred. Without a sudden shift of enrollment from Medicare fee-for-service to Medicare Advantage, the only way for spending to fall is through a substantial decrease, at least 4 percent, in the volume of physician services per beneficiary. Such a decrease is very unlikely, however, based on historical trends. Since 1999, for example, volume has increased at an average annual rate of about 5 percent per year. For this reason, MedPAC agrees with CMS's conclusion that the update for 2005 is likely to equal the MMA minimum of 1.5 percent.

Endnotes

1 MedPAC recommended an update for 2005 of 2.6 percent (MedPAC 2004).

2 For the SGR, physician services include services commonly performed by a physician or performed in a physician's office. In addition to services paid for under the physician fee schedule, these services include diagnostic laboratory tests and drugs covered under Medicare Part B. To estimate this factor, CMS uses a weighted average of the Medicare Economic Index (MEI), a measure of changes in input prices for physician services, the change in payment rates for laboratory services legislated by the Congress, and a weighted average of the change in payment rates for Part B-covered drugs.

3 As required by the MMA, the real GDP per capita factor in the SGR is measured as a 10-year moving average.

4 For the update, physician services include only those services paid for under the physician fee schedule.

5 This adjustment maintains the budget neutrality of a technical change in the calculation of the update intended to reduce year-to-year changes in the conversion factor.

6 Without this limit, CMS estimates that the adjustment would equal −10.0 percent.

7 Historical changes in the MEI are published by the CMS Office of the Actuary (2004).

8 For 2005, CBO projects an overall increase in Medicare Part B enrollment of 1.4 percent.

9 There is a difference of $30 million between the spending increases and the spending decrease. This difference is not large enough to appear in the SGR as a change in spending due to law and regulation because it is less than 0.1 percent of spending for physician services.

References

Bureau of Economic Analysis, Department of Commerce. 2004. *Current-dollar and real gross domestic product.* Washington, DC: BEA. http://www.bea.gov/bea/dn/gdplev.xls.

Gustafson, T. A., Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2004. Letter to Glenn M. Hackbarth, Medicare Payment Advisory Commission. March 1.

Medicare Payment Advisory Commission. 2004. *Report to the Congress: Medicare payment policy.* Washington, DC: MedPAC.

Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2004. *Estimated sustainable growth rate and conversion factor, for Medicare payments to physicians in 2005.* Baltimore: CMS. http://www.cms.hhs.gov/providers/sgr.

JANUARY 2006

REPORT TO THE CONGRESS

Effects of Medicare Payment Changes on Oncology Services

MEDPAC Medicare Payment Advisory Commission

Acknowledgments

This report was prepared with the assistance of many people. Their support was key as the Commission considered policy issues and worked towards consensus on its recommendations. We are particularly grateful to the many cancer patients, physicians, nurses, hospital and practice administrators who shared their experiences and insights with us.

The Commission benefited from the many individuals—in government, industry, and the research community—who generously offered their time and knowledge. Our thanks to the following: Nancy Davenport–Ennis, Tricia Davis, Allen Dunehew, Elizabeth Eaton, Jack Hoadley, Christopher Hogan, Alana Ketchel, Sreelata Kintala, Dianne Kube, Len Lichtenfeld, Zein Malas, Barbara McAneny, Kristen McNiff, Brent Miller, Jeffrey Scott, Catherine Truchinski, and Leigh-Ann White.

We also thank staff members of the Centers for Medicare & Medicaid Services who, despite a heavy workload, gave us their help: Peter Bach, Amy Bassano, and Kim Neuman.

Finally, the Commission wishes to thank Mimi Cantwell and Linda Rabben for their help editing this report.

Executive summary

Executive summary

In 2005, Medicare implemented significant changes in the way it pays oncologists for physician-administered drugs and drug administration services. Congress mandated that the Commission evaluate the effect of these changes and make policy recommendations if appropriate. We found that the payment changes did not affect beneficiary access to chemotherapy services. Some shifts in site of service were reported in site visits. Physicians provided more chemotherapy services and more Medicare beneficiaries received services in 2005 than in 2004. We saw no indication that quality of care was affected, and patients continue to be satisfied with the care they are receiving. Although the use of chemotherapy services varied by geographic region, we found no indication of access problems in any region. In general, larger practices were able to purchase chemotherapy drugs at lower prices than smaller practices, but all could buy most drugs at prices below the Medicare payment rate.

The Commission analyzed the effects of the payment changes on the provision of chemotherapy services through a series of studies:

- We analyzed expenditures and changes in volume for chemotherapy services using Medicare claims data.
- We analyzed a commercial database with prices for drugs used by oncologists to see if prices physicians paid were below the Medicare payment rates, and we measured the variation in prices different physician practices paid.
- We visited community oncologists, hospital outpatient departments, and health plans in five markets to discuss the effects of payment changes on practices.
- We conducted four focus groups with Medicare beneficiaries receiving chemotherapy in the past year to see how the payment changes affected their experiences.
- We interviewed stakeholders to gain their perspective on how the payment changes affected the buying and selling of physician-administered drugs.
- We reviewed the literature on pricing for Part B drugs and studies of indicators of quality of care for chemotherapy.

The Congress asked us to analyze the effects of the payment changes on a number of issues:

How did the payment changes affect Medicare payments?

Following historical trends, the Commission found that use of chemotherapy drug administration services and chemotherapy drugs increased in 2004 and 2005 following Medicare payment changes. Oncologists provided more chemotherapy sessions to Medicare beneficiaries in 2005 than in the previous year, and more individuals received chemotherapy in physician offices.

After the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) mandated payment increases in 2004, Medicare 2005 total payments for drug administration services equaled 2004 levels, but the volume of services provided to Medicare beneficiaries increased. Medicare paid less for chemotherapy drugs in 2005 than the previous year, although the volume of drugs provided to beneficiaries, measured by quantity and drug mix, increased. The mix of chemotherapy drugs provided to beneficiaries shifted towards newer, more expensive agents. Volume and spending for erythroid growth factors continued to increase.

How did the payment changes affect quality of care and beneficiary satisfaction?

Our ability to assess the quality of chemotherapy-related services received by Medicare beneficiaries is limited. Few consensus quality indicators for chemotherapy exist, although the profession is working to develop them. Beneficiaries in our focus groups reported that they were satisfied with the quality of care they received.

How did the payment changes affect adequacy of payment and availability of chemotherapy services in different geographic areas?

Overall trends in spending for chemotherapy drugs and drug administration services were similar in all geographic areas. Consistent with the general increases in chemotherapy services, the Commission found no evidence of access problems for Medicare beneficiaries needing chemotherapy in any part of the country. However, beneficiaries without supplemental coverage may be more likely than other beneficiaries to receive chemotherapy in hospital outpatient departments in some areas.

How did the payment changes affect adequacy of payment and availability of chemotherapy services in different practice sizes?

We were unable to collect empirical data on this subject. Based on its audit of physician purchases of chemotherapy drugs, the Office of Inspector General (OIG) of the Department of Health and Human Services found that large practices generally could get lower prices for drug purchases. However, all practices could purchase most drugs at or below the Medicare payment rate. During our site visits, we also determined that physicians in varied practice settings were able to purchase most drugs at the Medicare payment rate.

What was the impact on physician practices?

Our site visits suggest that all physician practices considered the 2005 payment changes significant and that they made changes in response to the new payment system. Oncologists responded to the changes by cutting costs and increasing efficiency (particularly with respect to drug purchasing activities), finding new sources of revenue (such as imaging) or selecting more profitable patients. Many physicians reported that the payments furnished to them through the quality-of-life demonstration project implemented by the Centers for Medicare & Medicaid Services (CMS) in 2005 ensured that they continued to provide care to Medicare beneficiaries,

although they did not believe that the project would improve quality or produce useful research results. The payments CMS provided to oncologists through this project made it difficult for the Commission and the Congress to evaluate the effect of the Medicare payment changes.

The Commission recommends some policy changes to improve the payment system and promote beneficiary access and quality chemotherapy care.

Recommendations are:

RECOMMENDATION 1

The Secretary should allow an exception to the competitive acquisition program (CAP) delivery rules for rural satellite offices of providers.

RECOMMENDATION 2

The Secretary should use his demonstration authority to test innovations in the delivery and quality of health care. Demonstrations should not be used as a mechanism to increase payments.

RECOMMENDATION 3

The Secretary should require providers to enter patients' hemoglobin level on all claims for erythroid growth factors. This data should be used as part of Medicare's pay-for-performance initiative.

The Commission would have recommended that OIG conduct another study of physician purchase prices for chemotherapy drugs. However, OIG has announced plans to conduct audits of drug acquisition costs for additional practices in 2006. Also, in the course of this study and an earlier one on cost sharing in private plans serving Medicare (MedPAC 2004), the Commission recognized that beneficiaries receiving chemotherapy could be liable for very high cost sharing. Changes to the Medicare benefit design that would limit cost-sharing liability for cancer patients and other patients with large health care spending merit further study.

Effects of Medicare payment changes on oncology services

RECOMMENDATIONS

1 The Secretary should allow an exception to the competitive acquisition program (CAP) delivery rules for rural satellite offices of providers.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

2 The Secretary should use his demonstration authority to test innovations in the delivery and quality of health care. Demonstrations should not be used as a mechanism to increase payments.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

3 The Secretary should require providers to enter patients' hemoglobin level on all claims for erythroid growth factors. This data should be used as part of Medicare's pay-for-performance initiative.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Medicare payment changes

The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) changed the way Medicare pays for both covered outpatient drugs and drug administration services under the physician fee schedule.[1] The Congress directed the Commission to study the effects of these changes on the quality of care Medicare beneficiaries received, patient satisfaction with that care, the adequacy of payments in different geographic areas and physician practice sizes, and the impact on physician practices (Appendix A). The first report, due January 1, 2006, focuses on services provided by oncologists; the second report, due January 1, 2007, focuses on drug administration services provided by other specialists.

Before 2003, Medicare generally paid physicians at rates well above their acquisition costs for physician-administered drugs but paid less for the costs involved in administering those drugs (MedPAC 2003). In 2004, the MMA reduced payment for most covered drugs from 95 percent of the average wholesale price (AWP) to 85 percent of the listed AWP as of April 1, 2003. Since AWP did not reflect actual prices charged to purchasers, the payment reduction resulted in payments that were still generally above acquisition costs (see MedPAC 2003 for discussion of incentives created by AWP). Medicare increased payment for drug administration services, particularly those used for chemotherapy. In addition, the MMA mandated two years of transition payments for chemotherapy drug administration services. This means that after CMS calculated new drug administration rates, it added transition payments each time a drug administration code was billed. In 2004, CMS increased each payment by 32 percent, and in 2005 each payment was increased by 3 percent.

In 2005, payments for drugs and drug administration services changed again. The MMA set payments for covered drugs at 106 percent of the average sales price (ASP).[2] ASP is based on actual transaction prices. In addition, CMS established new drug administration codes but reduced transition payments for drug administration services from 32 to 3 percent. As a result, physicians saw lower fees for individual drug administration services than in 2004, but they could bill for more services during each chemotherapy session.

CMS also implemented a one-year demonstration project to evaluate how chemotherapy affects the level of fatigue, nausea, and pain experienced by patients. All oncologists were eligible to receive $130 per patient per day for asking chemotherapy patients three questions about how they had responded to treatment. Answers were coded on a 4-point scale, and each answer had a payment code attached. To receive the payment, physicians had to submit answers to all three questions.

In 2006, some additional payment changes will take place. Physicians no longer will receive transition payments for drug administration services. CMS substituted a different demonstration project for the 2005 quality-of-life project. The agency lowered payments for this demonstration and changed data requirements. Physicians will be eligible to receive the demonstration payments in connection with oncology evaluation and management visits by cancer patients.[3]

The MMA calls for the establishment of a competitive acquisition program (CAP) in 2006. Organizations such as wholesalers or specialty pharmacies would submit bids to Medicare

to become designated vendors for Part B drugs. Each year, physicians would choose whether to continue to purchase and bill for Part B drugs or receive these drugs through a Medicare-designated vendor. Vendors would purchase and dispense drugs to physician offices on the basis of prescriptions written by physicians for their Medicare patients. Medicare would pay the vendors directly and the vendors would bill patients for required copayments. The program has not yet been implemented. In recent rule making, CMS changed requirements for CAP vendors and expects to implement the program by July 2006.

MedPAC analyses

Because the legislated changes have not yet been fully implemented, the Commission has limited ability to analyze the impact of these changes. In addition, we have only partial Medicare claims data for 2005, the first year Medicare implemented a new pricing method based on the ASP. Information provided during our site visits is not necessarily generalizable, and the perspectives of beneficiaries and providers have not been separately validated. Finally, few consensus quality indicators exist for chemotherapy-related services, although the profession is working to develop them.

The Commission undertook a series of qualitative and quantitative analyses to examine the effect of Medicare payment changes on the delivery of oncology services to Medicare beneficiaries. We conducted site visits to oncology facilities in five regions of the country. We organized four focus groups of beneficiaries who had received chemotherapy within the past year. We analyzed Medicare claims data and drug pricing data. Additionally, we interviewed stakeholders involved in the purchase and distribution of chemotherapy drugs. Finally, we reviewed the literature on pricing for Part B drugs and studies of quality-of-care indicators for chemotherapy.

Site visits

In 2004 we conducted site visits in five states or metropolitan areas to learn how chemotherapy was delivered in different types of practices around the country. In some cases we focused on a single metropolitan area; in others we visited practices located throughout a state. We visited practices in northern New Jersey, Iowa, Seattle, Atlanta, and New Mexico. Although the opinions elicited during these visits were subjective and cannot be considered nationally representative, we found considerable consistency in physicians' perspectives. In physician offices, we met with oncologists, oncology nurses, practice administrators, and pharmacists. Although we focused on community oncology practices most affected by the payment changes, we also met with relevant personnel in community hospitals, university hospitals, and cancer hospitals. To obtain a broader perspective on market conditions for oncology services, we also met with representatives of local health plans.

Physician interviews included questions on:

- practice size and patient volume,

- patient mix, including percentage of Medicare patients,
- drug selection and purchasing practices,
- the impact of new (and very expensive) chemotherapy agents,
- shifts in site of service,
- services provided to cancer patients, and
- quality of care in different settings.

Oncologists who worked within hospitals described the extent to which their institutions delivered chemotherapy. We asked if they were experiencing any increase in volume as a result of patients being shifted from physician offices to hospital outpatient departments. Finally, we asked them to compare the quality of services provided in both settings.

Representatives of local health plans discussed the market for oncology services in their communities. They discussed their payment methods and how they expected to be affected by the Medicare payment changes.

In 2005, we conducted follow-up interviews. We asked practices to evaluate how the payment changes actually affected them. We also asked them about ways Medicare could measure and provide incentives for quality care of cancer patients.

Beneficiary focus groups

In 2005, we conducted four focus groups with Medicare beneficiaries who had received chemotherapy services within the past year. Focus groups took place in Georgia and Maryland. Beneficiaries who participated in our focus groups received treatment in a variety of settings, including single-specialty oncology offices, outpatient departments of community hospitals, outpatient departments within university hospital cancer centers, and infusion centers of integrated health plans. We asked beneficiaries to discuss their satisfaction with the services they had received and whether they had experienced any changes in their chemotherapy care during the past year.

Medicare claims analysis

We analyzed partial-year carrier claims for 2005 to see if current payment changes had an impact on volume and spending for chemotherapy services provided within physician offices. We also analyzed Medicare claims data from 1999 to 2004 to examine trends in use and spending for Medicare beneficiaries receiving chemotherapy. We analyzed spending for drugs and drug administration services.

For the period between 1999 and 2004, we wanted to see if any shift occurred in the site of care for chemotherapy services from physician offices to hospital outpatient departments. When the

MMA was passed, some oncologists said that they might send their Medicare patients to the hospital for chemotherapy rather than furnish the service in their offices. Currently, more than 80 percent of chemotherapy is provided in physician offices. A significant shift in site of care could create convenience or access problems for beneficiaries if hospitals do not have the capacity to meet higher demand or if beneficiaries must travel long distances to the hospital. In addition, costs are generally higher for beneficiaries and the Medicare program when chemotherapy is provided in hospitals. Beneficiaries without supplemental insurance and patients requiring expensive therapies could be particularly at risk for higher out-of-pocket costs if physicians began sending some of their patients to the hospital.

Drug pricing analysis

We purchased commercial data on prices for the top 20 Part B drugs used by oncologists from the last quarter of 2004 to the third quarter of 2005. Although these data do not include all the rebates that purchasers may receive from manufacturers, they allow us to look at price trends over time, variation in prices negotiated by different purchasers, and average prices obtained by different types of purchasers, such as hospitals and physicians.

Interviews with stakeholders

We interviewed wholesalers, specialized oncology group purchasing organizations, and pharmacists working at physician practices and hospitals to understand better how oncology drugs are sold and distributed. Interviewees talked about how the drug distribution system for Part B drugs has changed since Medicare began basing payment on the average sales price. We also interviewed representatives of oncology specialty societies to discuss indicators that Medicare could use to measure quality of care for chemotherapy patients.

Medicare spending on chemotherapy drugs and services

We measured changes in use and spending on chemotherapy drugs and drug administration services for Medicare beneficiaries from 1999 to 2004, the last year for which we have complete data. Beneficiaries received an increasing volume of drugs and drug administration services throughout the period. Physicians tended to substitute newer, more expensive medications for older products. For 2005, we have partial data for chemotherapy drugs, erythroid growth factor, quality-of-life demonstration payments, and payments for drug administration services provided in physician offices. From this limited data, we found that Medicare payments for chemotherapy drugs declined while payments for erythroid growth factors continued to increase. Medicare beneficiaries received more drug administration services, but Medicare expenditures remained at 2004 levels. We estimate that the Medicare quality-of-life demonstration added about $200 million in payments to providers.

Payment trends: 2000–2004

In this section, we analyze historical trends in spending for chemotherapy and drug administration services from 2000 to 2004, the last year for which we have complete data. We found that data present a consistent picture (Tables 1 and 2). Whether in the aggregate, by site of service, or by individual drug, Medicare expenditures for chemotherapy drugs and drug administration services increased during the period. Drug administration services include providing chemotherapy infusions, other infusions, and injections to cancer patients. A nurse usually provides these services. The drugs used for chemotherapy and other purposes are billed separately. We found that drug spending grew rapidly in the period before passage of the MMA. In 2004, the first year legislated changes took effect, trends changed. Expenditures for drug administration services increased 217 percent, while spending for chemotherapy drugs increased by 4 percent. In 2004, Medicare expenditures for medical oncology services totaled $7,312,000,000, an increase of 19 percent over 2003.[4]

In 2004, the largest increase was for chemotherapy administration, which increased by 217 percent, to $912 million. This increase resulted from the increases in payment rates for chemotherapy services mandated by the MMA and increased volume. Payments for drug administration services represented about 12 percent of all Medicare payments to oncologists in 2004 (Figure 1, p. 9).

In 2004, the MMA reduced the payment rate for most covered drugs. As a result, drug payments to oncologists grew more slowly than historical trends would indicate. Nevertheless, payments for anemia drugs increased 17 percent over 2003 (following a 51 percent increase in 2003). Payments for other drugs, used primarily to treat the side effects of chemotherapy, increased by 13 percent over 2003 levels.

Table 1

Medicare payments for medical oncology services, by type of service, 1999–2004

	Spending (millions)					
Type of service	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
All Part B drugs:	$1,645	$2,132	$2,674	$3,650	$4,790	$5,276
Chemotherapy drugs	870	1,092	1,350	1,736	2,199	2,298
Erythroid growth factor	321	457	642	854	1,291	1,511
Other drugs	453	583	683	1,060	1,300	1,468
Drug administration	180	206	230	238	288	912
E&M services	550	612	676	745	823	862
Other services	136	151	174	213	256	260
Total	**2,512**	**3,102**	**3,754**	**4,845**	**6,157**	**7,312**

Note: E&M (evaluation and management). Medical specialties defined as hematology, hematology/oncology, and medical oncology. Other services include tests, imaging, and other procedures.

Source: Direct Research analysis of data from Medicare Physician/Supplier Procedure Summary Master File, 1999–2004, and OPPS Files, 2004 Final Rule through 2006 Proposed Rule.

Table 2

Annual growth rate in Medicare payments for oncology services, by type of service, 1999–2004

	Annual growth (percent)				
Type of service	**2000**	**2001**	**2002**	**2003**	**2004**
All Part B drugs	30%	25%	36%	31%	10%
Chemotherapy drugs	25	24	29	27	4
Erythroid growth factor	42	40	33	51	17
Other drugs	29	17	55	23	13
Drug administration	14	11	3	21	217
E&M services	11	10	10	11	5
Other services	11	15	22	21	2

Note: E&M (evaluation and management). Medical specialties defined as hematology, hematology/oncology, and medical oncology. Other services include tests, imaging, and other procedures.

Source: Direct Research analysis of data from Medicare Physician/Supplier Procedure Summary Master File, 2000–2004, and OPPS Files, 2004 Final Rule through 2006 Proposed Rule.

Payments for evaluation and management (E&M) services provided by physicians increased 5 percent, and payments for other services, including imaging and tests, increased 2 percent over 2003 levels.

Medicare spending for drugs and drug administration in 2005

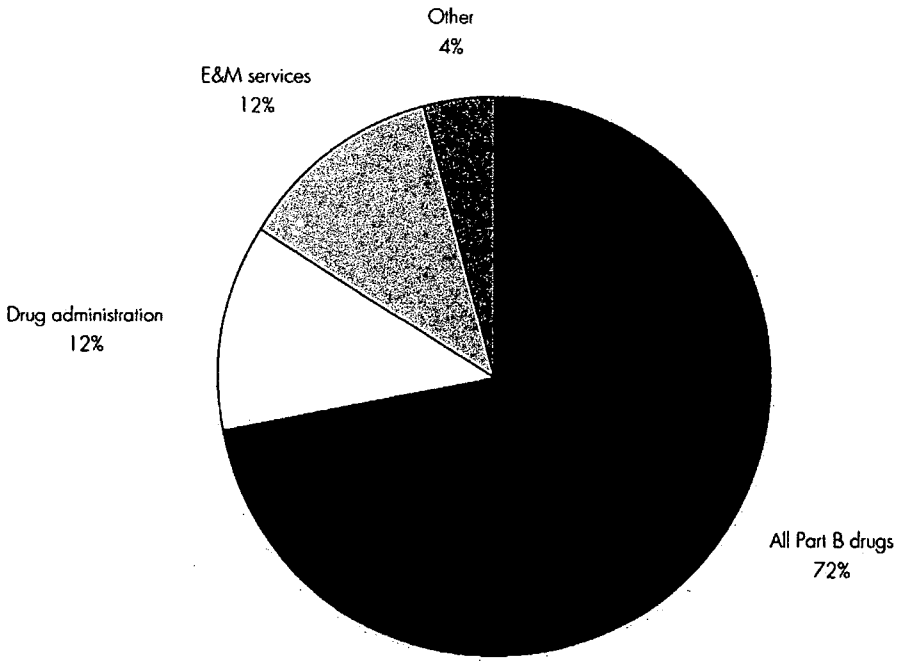
To measure the impact of 2005 Medicare payment changes, we analyzed carrier claims for the first six months of 2005.[5] We compared our results to spending and volume claims for the same period in 2003 and 2004. The data cover drug administration services, chemotherapy drugs, and erythroid growth factor used to treat anemia, administered in physician offices.[6] We also have spending data for the quality-of-life demonstration project funded by CMS in 2005. We do not have data on use and spending for other drugs to treat the side effects of chemotherapy or for other physician services provided by oncologists. We found that beneficiaries received more drug administration services in 2005 than 2004 but spending remained constant. Medicare payments for chemotherapy drugs declined in 2005. Physicians substituted newer, more expensive chemotherapy drugs for older drugs. Use and spending for erythroid growth factors continued to increase. We estimate that the demonstration project will add about $200 million to spending for chemotherapy services.

Drug administration services

- Coding changes make comparison of drug administration services between 2003, 2004, and 2005 difficult. The Congress added 32 percent transition payments for drug administration

Figure 1

Medicare payments to oncologists, by type of service, 2004



Note: E&M (evaluation and management). Medical specialties defined as hematology, hematology/oncology, and medical oncology. Other services include tests, imaging, and other procedures.

Source: Direct Research analysis of data from Medicare Physician/Supplier Procedure Summary Master File, 1999–2004, and OPPS Files, 2004 Final Rule through 2006 Proposed Rule.

in 2004 and 3 percent transition payments in 2005. Also in 2005, CMS established new codes that permit physicians to bill more codes for an individual chemotherapy session. The total number of chemotherapy drug administration services increased 33 percent from 2003 to 2005, while spending increased 182 percent.

- To measure the number of chemotherapy infusions provided in physician offices, we compared only the initial infusion code billed when chemotherapy sessions began in 2004 and 2005. Using this metric, we estimate that physicians provided 13 percent more chemotherapy infusion sessions in 2005 than in 2004.

- We also compared the number of Medicare beneficiaries receiving chemotherapy in physician offices in 2003, 2004, and 2005. This analysis was complicated because of inconsistencies in the claims data. We found many instances of chemotherapy administration codes billed without any accompanying drug claims. We also found claims for chemotherapy drugs without any accompanying drug administration claims. We estimate that the number of beneficiaries receiving chemotherapy increased 7.5 percent in

2005, based on the most conservative assumption. No matter what set of assumptions we used, Medicare beneficiaries received an increasing number of chemotherapy sessions in physician offices from 2003 to 2005.

Chemotherapy drugs

- Medicare paid less for chemotherapy drugs in 2005 than in 2004, although the volume of drugs provided to beneficiaries, measured by quantity and drug mix, increased (Table B-1, p. 41). As in previous years, physicians tended to substitute newer, more expensive drugs for older products (Table B-2, p. 42). Expenditures for chemotherapy drugs declined by 14 percent from 2004 levels.

Erythroid growth factors

- Compared to 2004, the use of erythroid growth factors grew 15 percent in 2005 when measured in equivalent doses between agents. We found that total spending for these products, unlike chemotherapy drugs, grew 3 percent.

Quality of life demonstration project

- In 2005, CMS implemented a demonstration project that paid oncologists to report on the side effects of chemotherapy their patients had experienced. In the part-year file through June 23, 2005, CMS had paid for almost 1.9 million assessments, at a cost of about $81 million. Assuming no trend, extrapolating that amount to the entire year would suggest that CMS will pay about $200 million under this demonstration in 2005.[7]

Changes in physician practices

The Congress required the Commission to examine the effect of the payment changes to physician practices. During our site visits, we asked physicians for their response to the Medicare payment changes. Although their answers were subjective, physicians told us they considered the payment changes significant and changed their practices in response. All practices changed their drug purchasing activities. Some also changed their use of drugs, office staffing, mix of services offered, and patient mix.

All the physicians we visited reported that they spent more time and resources shopping for lower prices for drugs than they did before the payment changes. Their choice of ancillary drugs for treating chemotherapy side effects was more likely to be based on price. Many practice managers reported that they routinely purchased only one drug to treat nausea and one erythroid growth factor to treat anemia for all the physicians in the practice. Physicians also reported that they kept smaller inventories of drugs on hand than previously. This allowed them to respond quickly to price changes and avoid tying up large sums of capital.

Many offices have hired employees to work with patients when they begin treatment to ensure that they can pay their out-of-pocket expenses. This financial adviser estimates the beneficiary's potential liability based upon the treatment plan. If the beneficiary does not have supplemental insurance, the adviser determines whether she qualifies for other assistance, including Medicaid and assistance programs maintained by individual pharmaceutical manufacturers. The beneficiary may be given a payment schedule to make copayments over time.

Practices reported that differences in local coverage policies affected their treatment decisions. Physicians were reluctant to use expensive new therapies that they thought the local carrier might not cover. For example, a carrier might cover a new drug for treatment of one cancer while the physician wanted to use it to treat a patient with another type of cancer. One practice reported sending a patient to the hospital outpatient department for treatment because the local intermediary covered a particular drug and the carrier did not. Practices reported they were less likely to appeal local coverage decisions. They found the appeals process too expensive and time-consuming and the outcome of the appeal uncertain.

Physicians also took actions to reduce costs or improve efficiency. For example, some practices reduced costs by changing their mix of employees, replacing full-time employees with part-time employees, or replacing nurses with pharmacy technicians. Similarly, many practices reported that they reduced health and pension benefits for their employees. One practice reported increasing efficiency by hiring workers to do the coding for oncology nurses. In this way, they believed that more of the nurses' time would be freed for patient care. Similarly, several practices reported hiring a pharmacist to purchase and mix drugs. The pharmacist also recommended drugs to the practice based on price and clinical effectiveness.

Some practices tried to increase revenues by providing more services in their offices. For example, some physician practices purchased positron emission tomography (PET) scanning technology in the past few years and increased imaging in their offices. However, this was only possible for practices with large facilities. Many practices reported they did not have the space or capital to expand in this way.

No physician or office manager reported that the payment changes affected the quality of care in their office. No beneficiary who participated in our focus groups reported that she had seen a decline in the quality of care she was receiving.

Geographic differences

As with other medical services, the volume of chemotherapy drugs and drug administration services provided to Medicare beneficiaries varies considerably by area. Overall trends in spending for chemotherapy drugs and drug administration services were similar in all geographic areas. We found no evidence of access problems for Medicare beneficiaries needing chemotherapy in any part of the country, although beneficiaries without supplemental coverage did get their chemotherapy in the hospital more often in some areas.

Physicians practicing in low geographic practice cost index (GPCI) areas told us they faced disproportionate cuts in their overall payments because of the Medicare payment changes. Unlike drug administration services, payments for drugs are not adjusted for geographic variation in the costs of practice. With the MMA payment changes, physicians in these areas saw the same cuts in payments for chemotherapy drugs but received lower additional payments for drug administration services than physicians in other parts of the country.

Some physicians faced unique state laws and regulations that affected their Medicare payments. For example, some states impose taxes on the drugs physicians purchase. State Medicaid policies also affected the payments physicians received for treating beneficiaries dually eligible for Medicare and Medicaid. In many states, Medicare program payments for services (80 percent of the allowed payment rate) are equal to or higher than Medicaid rates. In these instances, the state Medicaid program may not pay the 20 percent copayment for dual eligibles. Providers receive the Medicare payment as payment in full.

Beneficiaries without supplemental insurance

Prices for new cancer and other Part B drugs have increased rapidly, while Medicare has begun to pay physicians close-to-acquisition costs for drugs. Beneficiary copayments (20 percent of the payment) have been rising, and physicians who cannot collect coinsurance from beneficiaries will receive only 80 percent of the Medicare payment rate for the drugs. There is no limit to the out-of-pocket costs that beneficiaries may face. Medicare beneficiaries without supplemental coverage may be transferred to hospital outpatient departments (HOPDs) and face higher copayments there. However, if beneficiaries who cannot pay cost sharing in physician offices go to HOPDs for chemotherapy infusion, they are unlikely to be able to pay cost sharing there. Instead, their unpaid bills would become bad debt. Medicare pays 70 percent of hospitals' bad debt.

The Commission is concerned about the burden of cost sharing for beneficiaries with cancer and other catastrophic conditions. The Commission will explore the general issue of unlimited beneficiary out-of-pocket liability, which can affect cancer patients and patients with other illnesses, in future work.

Although we did not find any cases in which beneficiaries could not get chemotherapy services, Medicare beneficiaries without supplemental insurance have more limited choices in some areas of the country. These individuals are more likely than other beneficiaries to receive chemotherapy in HOPDs. In 2004, the Commission found that in some markets, oncology practices had stopped treating Medicare patients without supplemental insurance in their offices. Patients were sent to hospital outpatient departments or safety-net facilities. When we returned to these practices in 2005, we found they were sending an increasing number of patients to the HOPD.[8]

When patients are sent to the hospital for chemotherapy, the physician continues to manage their care. Physicians still provide evaluation and management visits, some lab work, and

other services in the office setting. Although quality of care may be equivalent in hospitals and physician offices, beneficiaries face higher copayments in HOPDs and treatment usually takes longer. For example, chemotherapy drugs must be mixed in the hospital pharmacy, where pharmacists are preparing medications for all the other hospital patients. The chemotherapy patient will wait longer until the medication is prepared. Only a few beneficiaries who participated in our focus groups had been referred to the HOPD from physician offices. They emphasized the duplication of tests and increased time commitments caused by the switch. One individual complained about the higher copayments.

As the price of new cancer drugs continues to rise, beneficiaries without supplemental insurance may have an increasingly hard time paying their 20 percent coinsurance. Although most physician practices have continued to treat all beneficiaries in their offices, beneficiary inability to meet cost-sharing requirements creates a financial liability for the practices. Unlike hospitals, physicians cannot receive payment for bad debt from Medicare. Many practices have begun to counsel beneficiaries on their estimated out-of-pocket liabilities before treatment begins. A few practices reported instances in which a beneficiary refused treatment because she did not want to travel to a hospital or leave her family with debts caused by her out-of-pocket liability.

We cannot quantify the number of beneficiaries who need help paying their coinsurance for chemotherapy. We have no source of data to determine the number of Medicare beneficiaries without supplemental insurance who are receiving chemotherapy services. Data on supplemental insurance are not captured on Medicare claims. The oncology practices we visited estimated between 5 and 20 percent of their Medicare patients have no source of supplemental coverage. Estimates varied depending on the demographic structure of the market and the availability of Medicare Advantage and retiree health insurance. The Commission (MedPAC 2005a) estimates that 9 percent of all beneficiaries have no source of supplemental coverage. Beneficiaries without supplemental coverage are not the only individuals facing high copayments. Some cancer patients who participated in beneficiary focus groups were concerned that they might exceed lifetime caps on their retiree coverage.

Many pharmaceutical companies offer patient assistance programs to help patients with the cost of their medications. In 2003, pharmaceutical companies provided patients with medications valued at $3.3 million. However, this assistance is not readily available for Medicare beneficiaries without supplemental insurance. Most of the assistance goes to patients without any insurance. Less aid is available for individuals needing help with copayments. Yet this cost may be beyond the means of many beneficiaries. For example, one new cancer drug costs Medicare an average of $12,000 every two weeks. Beneficiaries face copayments of $2,400 monthly for this medication. Beneficiaries continue taking the medication until their condition worsens. Medicare beneficiaries have no limit on the out-of-pocket drug costs they face under Part B, unlike Part D.

Additionally, manufacturers have individual programs linked to their own products. Chemotherapy regimens generally require administration of a number of different drugs. A patient would have to apply for assistance from each manufacturer. Therapies might be determined depending on which manufacturer programs are available for the patient.

In the case of chemotherapy drugs, physicians often find patient assistance programs difficult to

use, because the programs provide replacement drugs for products that have been administered rather than paying for the cost of the drug. Physicians cannot recoup the cost of the drug and cannot bill for the replacement product if they administer it to another patient because the physician did not buy it. Additionally, the physician may not have another patient who needs the specific medication.

Limited help is available for Medicare beneficiaries who need assistance paying out-of-pocket expenses. The Patient Advocacy Foundation, a national 501(c)(3) nonprofit organization, has established a Co-Pay Relief (CPR) program to help qualified insured individuals with copayments. The program is limited to patients who need treatment for breast cancer, lung cancer, prostate cancer, and macular degeneration.

The Commission is concerned about high cost sharing for cancer patients. The issue of unlimited beneficiary liability also affects other beneficiaries. In future work, we will examine long-term solutions to this problem.

Drug pricing in 2005

Medicare began paying for Part B drugs according to a new methodology, based on ASP, in 2005. Payment for most covered drugs is set at 106 percent of ASP. To date, this system has reduced payment rates for most covered drugs. In the course of our site visits, the Commission found that most oncologists could purchase most drugs at rates below the Medicare payment level, but profit margins on these drugs generally were low, as the policy change anticipated. Every practice reported that that they could not buy some drugs at the payment rate. A study by the Office of Inspector General (OIG), Department of Health and Human Services indicated that oncologists could still purchase most drugs at rates below the payment level, although specific drugs posed a problem for some practices. In general, larger practices paid lower prices than smaller practices for the same drugs.

The Commission has found that variation in prices paid by different purchasers has narrowed throughout 2005. In general, the Commission finds that the payment system for drugs is providing adequate payments, but some adjustments to the methodology may be warranted as Medicare gains more experience with the new system. We found that more far-reaching changes are needed in the regulations establishing the competitive acquisition program, an alternative payment system.

Average sales price methodology

In general, Medicare's change to a payment system based on ASP has resulted in program savings, and oncologists can purchase most drugs at prices below the payment rate. Although not an actual price, ASP represents the weighted average of the manufacturer's sales price for each product that falls within a Medicare drug billing code.[9] It is based on data submitted quarterly by pharmaceutical manufacturers, is net of price concessions such as rebates and

discounts, and is limited to sales in the United States. The ASP payment rate is set prospectively, based on transaction prices from two quarters prior.

All stakeholders that take part in the drug distribution system, including CMS, pharmaceutical manufacturers, group purchasing organizations (GPOs), and physician purchasers, have been affected by the new payment system. Stakeholders have had to adapt to the transition to the new system:

- CMS had to develop a new payment system and provide direction to manufacturers on calculating ASP for their products.
- Manufacturers had to evaluate their pricing practices with the knowledge that large discounts given to some purchasers would lower Medicare payment rates in subsequent quarters. If they raised prices sharply, they might reduce demand for their products. They also had to evaluate the fees they paid to wholesalers and GPOs. Representatives of GPOs told us they had more difficulty negotiating substantial discounts for their clients as manufacturers calculated the effect of reduced prices on their products' ASP for the following quarters.
- Oncology practices also had to adapt to the new system, developing more efficient purchasing practices. Many oncology practices interviewed noted they were more likely to purchase non-chemotherapy drugs on the basis of price than in previous years. All practices reported they kept smaller drug inventories, taking advantage of prompt pay discounts, the most readily available discounts they could receive under the new payment system.

Although rates calculated under the new system generally resulted in Medicare payments that were adequate, all physicians interviewed reported some drugs could not be purchased at the calculated rate. In conversations with the Commission staff, physicians frequently listed older generic drugs among the products they could not purchase at 106 percent of ASP. Wholesaler markups are not included in manufacturer ASP calculations but raise prices paid by physicians and other purchasers. If markups represent a higher percentage of the cost of generic drugs, they may result in inadequate payments for these products. Manufacturers also do not take into account final prices when products are resold by the original purchasers for profit.

How did the change to ASP affect Medicare payment rates for drugs?

A report issued by OIG (2005) found that oncologists generally could purchase drugs for the treatment of cancer at less than the Medicare payment rates (Table 3). The Congress mandated that OIG analyze acquisition costs for oncology drugs during the first quarter of 2005. The study was based on audits of 193 practices, focusing on payment for 40 drugs that in sum represented about 94 percent of total 2004 oncology-billed Medicare drug spending. The drugs included the 25 drugs with the highest total spending in 2004, five drugs identified by industry as having Medicare payment rates that were too low, and an additional 10 drugs with high expenditures. One drug, denileukin diftitox, was eliminated from the study because of insufficient purchases by sample practices.[10] Prices were collected from January through March 2005 and compared with Medicare payment rates for the first quarter of the year.

OIG estimated that, on average, practices could purchase 35 of the 39 drugs at less than the Medicare payment rate. For 32 of the drugs, OIG determined that average purchase prices were within 15 percent of the Medicare payment rate. Five of the 35 drugs had positive margins ranging from about 39 to 87 percent. Medicare paid practices at rates of 29 and 25 percent below cost for two drugs. On average, larger physician practices purchased drugs at lower prices than smaller practices. The smallest practices in the sample purchased 33 of the 39 drugs at prices below Medicare payment rates.

The Commission further analyzed the data presented in the OIG report to determine what kinds of drugs provided higher or lower payment margins compared to the Medicare payment rates (Table 3). We also examined what happened to the Medicare payment rate in the last quarter of 2005 for drugs with larger-than-average margins in the first quarter.

We found that the physicians were able to purchase drugs at rates well below the Medicare payment rate when generic alternatives, such as carboplatin and cisplatin, were newly available. Medicare payment rates for these drugs dropped sharply by October 2005. Purchasers also were able to buy brand name drugs with therapeutic substitutes available at prices well below Medicare payment rates. One example would be dolasetron mesylate, used to treat nausea in chemotherapy patients. In general, we found that when OIG found that the average purchase price for a drug was more than 15 percent lower than the January Medicare payment rate, the Medicare payment rate fell by October. Payment rates for chemotherapy drugs in this category declined from 72 to 38 percent.

OIG determined that, on average, Medicare payment rates were inadequate to meet provider costs for four drugs used frequently by oncologists. One possible reason for Medicare payments falling below acquisition costs could be the way manufacturers include rebates in their calculations of ASP. Since manufacturers frequently determine rebates retrospectively, based on the volume of sales to specific purchasers, they may not know the final price they received for a given drug at the end of a quarter. If a manufacturer reports the rebates earned by customers for a product throughout the year at the time when the rebate is actually paid, the price or ASP for the product will be lower than the typical acquisition cost for a purchaser during that reporting period. Since the first quarter of 2005, CMS has changed the way rebates are factored into ASP calculations. The agency found that some payment rates changed quarterly as the level of rebates added to the calculations fluctuated. This may have affected rates for some of the drugs listed here.

The OIG report was based on provider acquisition costs in the first quarter of 2005. In that quarter, ASP was calculated based on manufacturer prices in effect before the payment system changed. The report provided an early indication that Medicare payment rates under the ASP system were adequate. A second analysis is warranted to evaluate how the system is working following a year's experience.

The Commission had intended to recommend that OIG analyze 2006 physician acquisition costs to see how accurate Medicare drug payments are following a year's experience with the new payment system. However, OIG has announced that it intends to audit a sample of oncology practices to compare their acquisition costs with the Medicare payment rate in 2006. The

Table 3

Estimated average prices for drugs purchased by oncologists

Drugs	OIG estimated average purchase price	1st quarter Medicare payment rate	Percentage difference	4th quarter Medicare payment rate	Change in payment rate between 1st and 4th quarters
Carboplatin	$16.24	$125.47	87.1%	$35.25	–71.9%
Dexamethasone	0.05	0.14	64.3	0.11	–21.4
Cisplatin	2.05	4.96	58.7	2.37	–52.2
Vinorelbine	35.71	69.09	48.3	42.83	–38.0
Dolasetron Mesylate	4.04	6.61	38.8	6.52	–1.36
Cyclophosphamide	2.03	2.34	13.2	2.12	–9.83
Epoetin alfa	9.20	10.60	13.2	9.22	–13.0
Filgrastim	245.46	282.41	13.1	279.57	–1.0
Darbepoetin alfa	15.61	17.72	11.9	15.06	–15.0
Fluorouracil	1.49	1.68	11.3	0.64	–61.9
Leucovorin	1.16	1.30	10.8	1.32	1.8
Palonosetron hydrochloride	16.38	18.23	10.1	17.99	–1.3
Granisetron hydrochloride	6.39	7.09	9.9	7.14	0.6
Vincristine	3.18	3.50	9.1	3.60	2.9
Pegfilgrastim	2,080.71	2,273.93	8.5	2,078.07	–8.6
Etoposide	0.46	0.49	6.1	0.49	0.0
Docetaxel	280.71	297.58	5.7	293.64	–1.3
Pamidronate disodium	56.50	59.06	4.3	40.63	–31.2
Gemcitabine hydrochloride	111.40	115.34	3.4	115.89	0.5
Fludarabine	263.12	272.10	3.3	262.87	–3.4
Bevacizumab	55.27	57.08	3.2	57.11	0.1
Zoledronic acid	192.95	198.39	2.7	200.03	0.8
Trastuzumab	51.80	52.99	2.2	54.39	2.7
Oxaliplatin	8.07	8.24	2.1	8.53	3.5
Irinotecan	123.00	125.58	2.1	126.92	1.1
Mitoxantrone	316.10	321.80	1.8	323.80	0.6
Doxorubicin J9001	353.30	359.63	1.8	364.53	1.4
Topotecan	730.88	739.69	1.2	763.80	3.3
Octreotide	84.40	85.39	1.2	87.31	2.3
Diphenhydramine	0.93	0.94	1.1	0.72	–23.4
Sargramostim	21.44	21.67	1.1	21.87	0.9
Amifostine	414.00	417.56	0.9	439.31	5.2
IVIG non-lyophil	56.25	56.72	0.8	56.30	–0.7
Fulvestrant	79.97	80.51	0.7	81.33	1.0
Rituxan	440.10	442.01	0.4	455.92	3.2
Paclitaxel	16.71	15.85	–5.4	13.33	–15.9
Leuprolide	279.34	253.13	–10.4	224.42	–11.4
Enoxaparin sodium	6.45	5.16	–25.0	5.45	5.6
Doxorubicin J9000	5.48	4.26	–28.6	5.84	37.0

Note: OIG (Office of Inspector General), IVIG (Intravenous immune globulin). Table excludes denileukin diftitox, which was listed in the Inspector General's report without an estimated price.

Source: Office of Inspector General 2005, and MedPAC analysis of CMS October 2005 Payment Allowance Limits for Medicare Part B Drugs.

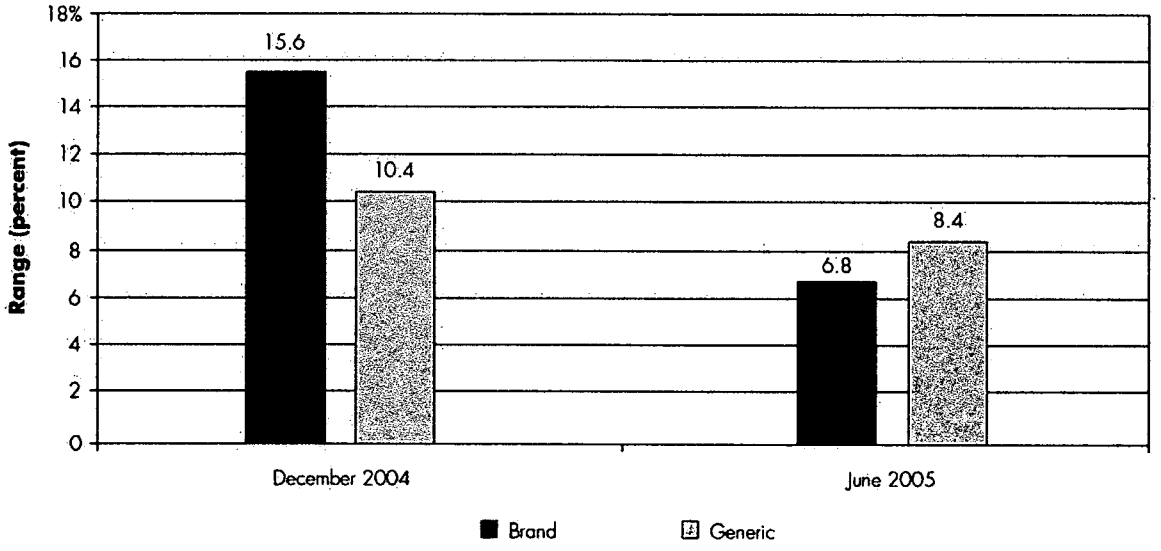
Commission also plans to monitor the relationship between ASP and purchaser prices in the coming year. If changes are warranted, we may recommend modifications to the calculation of ASP.

Price variation

The Commission hypothesized that pharmaceutical manufacturers would narrow the range of discounts offered to purchasers to ensure that all physicians could purchase their products at the Medicare payment rates. Since the market for chemotherapy drugs is limited, manufacturers would want to maximize their customer base. To track changes in oncology prices over time, the Commission acquired pricing information from a commercial data source.[11] The data track sales to retail pharmacies, staff-model HMOs, hospitals, clinics (including physician offices), long term care facilities, and federal facilities.[12] Prices are net of discounts but do not include rebates provided by manufacturers retrospectively. The database also shows variation between the lowest and highest prices the purchaser paid at each quartile for each distribution channel. The Commission purchased data on 26 drugs billed by oncologists for one month of each of the first

Figure 2

Change in price variation for selected brand and generic drugs purchased by oncologists



Note: Two drugs have been excluded because generic alternatives became available during the four quarters. Two others have been excluded because of crosswalk problems. The range measures the percent of variability among the prices paid by clinics. It is measured by subtracting the price paid by the 25th percentile of purchasers from the price paid by the 75th percentile of purchasers, dividing by the price paid by the 50th percentile of purchasers, and multiplying by 100. MedPAC's contract with IMS Health does not allow the prices of drugs to be named individually.

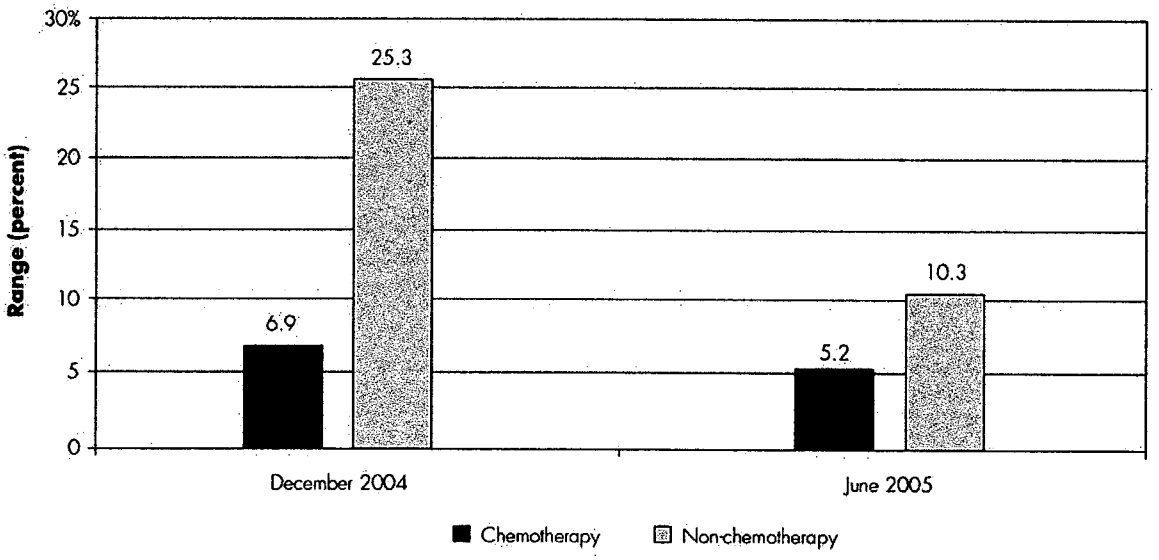
Source: MedPAC analysis of IMS Health data 2004–2005.

three quarters of 2005. Drugs include chemotherapy agents and medications used to treat the side effects of chemotherapy. Many overlap with the drugs identified in the OIG report. The 26 drugs accounted for more than 50 percent of physician-administered Part B drug spending in 2004.

Our analysis of prices paid by physicians showed that price variation for our basket of drugs declined between the first and third quarters of 2005. Next, we looked to see if the decline in price variation was more pronounced for any particular types of drugs. We grouped our drugs in two ways. First, we classified them based on whether they were single source branded drugs or had generic alternatives. Next, we looked at whether the drugs were chemotherapy agents or prescribed to treat the side effects of chemotherapy. For all four categories, the range, defined as the variation between the best and worst price obtained by physicians, narrowed between the first and third quarters of 2005.[13] The range for single source chemotherapy drugs—small to begin with—narrowed least, falling from 6.9 percent to 5.2 percent. The biggest change was in the range for drugs used to treat the side effects of chemotherapy. That range declined 54 percent in the third quarter (Figures 2 and 3).

Figure 3

Change in price variation for selected chemotherapy and non-chemotherapy drugs purchased by oncologists



Note: Two drugs have been excluded because generic alternatives became available during the four quarters. Two others have been excluded because of crosswalk problems. The range measures the percent of variability among the prices paid by clinics. It is measured by subtracting the price paid by the 25th percentile of purchasers from the price paid by the 75th percentile of purchasers, dividing by the price paid by the 50th percentile of purchasers, and multiplying by 100. MedPAC's contract with IMS Health does not allow the prices of drugs to be named individually.

Source: MedPAC analysis of IMS Health data 2004–2005.